Exhibit C

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August 14, 2015

Thomas A. Lynam, III Villari, Lentz & Lynam, LLC 1600 Market Street, Suite 1800 Philadelphia, Pennsylvania 19103

Subject: Jason Marino and Joy Marino, and Thomas Marino and Lisa Marino v. Pilot Travel Centers, LLC and Sovereign Consulting, Inc.

Dear Mr. Lynam:

On June 23, 2015, I was asked to review materials received by your office associated with the *Marino* matter and to provide my opinions regarding the association between diesel fuel [weathered product] exposure and the development of acute kidney injury (AKI) (formerly known as acute renal failure (ARF)) specific to Mr. Marino's employment at the Flying J Travel Plaza #710 (Pilot Travel Center) from March 21st through March 26th of 2014.

At your request, I have reviewed the following materials sent to me by your office:

- 1. Complaint dated August 7, 2014.
- 2. Deposition of Douglas Keith Carlton and Exhibits, dated June 19, 2015.
- 3. Deposition of Joseph Cupp and Exhibits 1-3, dated April 30, 2015.
- 4. Deposition of Jason Marino and Exhibits 1-12, dated May 12, 2015.
- 5. Deposition of Joy Marino, dated June 16, 2015.
- 6. Deposition of Lisa Marino, dated June 18, 2015.
- 7. Deposition of Thomas Marino, dated June 18, 2015.
- 8. Deposition of Rebecca Albert, dated May 15, 2015.
- 9. Deposition of Brian Becker and Exhibits 1-8, dated June 17, 2015.
- 10. Deposition of Adam Gsell and Exhibits 1-6, dated May 6, 2015.
- 11. Deposition of Carolyn Hardt and Exhibits, dated May 4, 2015.
- 12. Deposition of Edward Mattos, dated May 6, 2015.
- 13. Deposition of Kevin Nace and Exhibits 1-2, dated May 1, 2015.
- 14. Deposition of Frank Noone and Exhibits 1-6, dated May 1, 2015.
- 15. Deposition of Timothy Praise and Exhibits 1, dated May 1, 2015.
- 16. Deposition of Daniel Slavin and Exhibits, dated May 21, 2015.
- 17. Deposition of William Smith and Exhibits 1-9, dated May 14, 2015.

- 18. Pennsylvania DEP documents.
- 19. Environmental Products and Services documents.
- 20. Pilot discovery responses [no date provided].
- 21. Pilot bates documents PIL000001- PIL000396.
- 22. REMCO documents.
- 23. REMCO supplemental documents issued in response to subpoena, dated May 6, 2015.
- 24. Sovereign bates documents SOV0001-SOV0513.
- 25. Sovereign bates documents SOV699-SOV706.
- 26. Sovereign bates documents SOV0699-SOV2233 [various medical records].
- 27. Sovereign bates documents S0001 S0537.
- 28. Sovereign bates documents SOV000707-SOV002328.
- 29. Various medical records.
- 30. Site inspection photographs 108-370.
- 31. Jason Marino photographs 1-25.
- 32. Various photographs from REMCO Counsel.
- 33. Li, FK, et al. 1999. Acute Renal Failure After Immersion in Sea Water Polluted by Diesel Oil. *Am J Kidney Dis*, 34(6): 1-5.
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- 40. Lim, V. S. 2001. Thyroid function in patients with chronic renal failure. *American journal of kidney diseases*, 38(4), S80-S84.
- 41. National Institute of Health. Haz-MAP Category Details: Diesel Fuel. Website: http://hazmap.nlm.nih.gov/category-details?id=1651&table=copytblagents.
- 42. United States Department of Labor. Diesel Fuel. OSHA. Website: https://www.osha.gov/dts/chemicalsampling/data/CH_234655.html.
- 43. Pennsylvania DEP. 2013. Introduction to Statistical Inventory Reconciliation For Underground Storage Tanks.

The opinions that I am offering in this case are based on the materials provided to me and on the available scientific literature related to the epidemiology of diesel fuel exposure and development of acute renal failure. All statements made in this report are made to a reasonable degree of scientific and medical certainty. In the event



additional, relevant, information is made available to me, I reserve the right to amend my report accordingly. My current hourly rate is \$540 per hour.

Background and Experience

I am a Principal Scientist in the Chicago office of Exponent, a scientific research and consulting company headquartered in Menlo Park, California. I have worked at Exponent since November, 2003. Prior to working at Exponent, I held a series of positions with advancing responsibility in the areas of public health, occupational medicine and academia. I have had extensive experience in the oil and gas industry at multiple levels, including corporate medical director of Amoco/BP. I was employed at the Oklahoma State Department of Health and held a series of positions culminating in my appointment as the State Epidemiologist, a post that I held from 1979 to 1982. In this capacity, I directed epidemiologic investigations regarding a broad range of health concerns, from chemical exposures and product complaints to foodborne outbreaks, ground water contamination, zoonotic disease outbreaks and cancer clusters. I was a faculty member of the Department of Preventive Medicine at the Medical College of Wisconsin from 1990 to 1997, as Associate Professor and Acting Chairman of the Department. I have also served as Corporate Medical Director for several global companies. I earned a Master's degree in Education in 1972, an M.P.H. in Epidemiology and Biostatistics in 1974, and a Ph.D. in Epidemiology and Biostatistics in 1979. I completed medical school in 1986, an internship in Family Medicine in 1987, and a residency/fellowship in Occupational and Environmental Medicine in 1990. I have unrestricted licenses to practice medicine in Oklahoma, Wisconsin, and Illinois.

In addition to my employment experience, I am a past member of the Board of Directors (2000–2011) and current President (2015-2016) of the American College of Occupational and Environmental Medicine in Arlington Heights, Illinois. I have been a member of the Board of Directors of Vysis, Inc. in Downers Grove, Illinois and the Board of Scientific Counselors for the Agency for Toxic Substances and Disease Registry in Atlanta, Georgia. In addition, I have served as an active participant on numerous state and national professional committees. I am also currently on the Board of Directors for the Chicago Section of American Industrial Hygiene Association in Chicago, Illinois.

Overview of Occupational and Environmental Medicine

Occupational and Environmental Medicine is a medical subspecialty that is recognized by the American Board of Medical Specialties and is one of the population-based specialties of Preventive Medicine. Specialists in this area are physicians with advanced training in preventive medical care of populations. Among several different emphases, Occupational and Environmental Medicine typically focuses on environmental and health-related interactions. Occupational and Environmental Medicine physicians are also trained to



assess the possible causes of an individual's health condition based on potential exposure sources. This specialty draws heavily on the key tenets of epidemiology, biostatistics, industrial hygiene, risk assessment and toxicology. I relied extensively on my training and experience to reach my conclusions and opinions to a reasonable degree of scientific and medical certainty in this matter.

Incident Case Summary

While employed as a plumber with REMCO from approximately July of 2013 until March of 2014, Jason Marino was assigned to repair a leaking water line at the Pilot Travel Center on March 21, 2014. According to the materials provided, Mr. Marino worked at this site on Friday, March 21, 2014, and Monday through Wednesday of the following week (March 24-26, 2014)¹. While performing his repair duties over the four day period, Mr. Marino reported spending several hours in the excavation each day for the first three days. Beginning on Friday, March 21, 2014, he observed a "dark-colored" liquid, similar to "muddy water," bubbling up from the bottom of the excavation trench where he was working. Mr. Marino testified that he wore the same insulated coveralls every day of the job and described them as "damp" from the previous workdays. Based on his description, he was in direct contact with the soiled coveralls throughout the four day work period. Laboratory analysis reported by MIT scientist Dr. Neil Jenkins regarding the clothing and equipment used during Mr. Marino's work in the excavation confirmed the presence of hydrocarbons associated with diesel fuel [weathered product]. In addition to direct contact, Mr. Marino's work also required him to be in the breathing zone of the liquid for several hours over the four day work period.

According to the materials provided, the liquid substance that Mr. Marino was exposed to was as described as a "dark-colored" liquid resembling "muddy water" and contained diesel and its weathered products. On November 12, 2013, the Pennsylvania Department of Environmental Protection cited the Pilot Travel Center for presence of "black weathered type product" in the field observation wells, noting that this was a recurring issue. The hydrogeological data clearly indicated that a pool of diesel fuel and/or weathered product was present under the site and specifically where the excavation work was performed. The materials reviewed also indicated that the Pilot Travel Center noticed a water line repair issue on March 11, 2014, and suspected that previous drilling in one of the monitoring wells may have damaged a water line as liquid was observed coming out of the ground near monitoring well MW-3. Monitoring well sampling at the site confirmed the presence of diesel fuel [weathered product]. After REMCO was contracted to perform the job, Mr. Marino and two of his fellow co-workers, Mr. Frank Noone and Mr. Timothy Parisey, were sent to the site on March 21, 2014, to repair the water line damage. The REMCO team excavated the area close to MW-3 and continued to work at the site for another three days on March 24-26, 2014. Over the four day work period,

² According to analytical ground water test results, this substance includes, but is not limited to: Benzene, 1,2,4 and 1,3,5 trimethylbenzene.



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¹ Mr. Marino returned to the work site to pick up his equipment on Thursday, March 27, 2014.

Mr. Marino spent several hours of the first three days working in the excavation where he was exposed to the liquid. As a result, Mr. Marino received direct dermal exposure. In addition, Mr. Marino inhaled diesel fuel [weathered product] vapors while working in and around the excavation for several hours each day.

Mr. Marino's Medical History

On Wednesday, March 26, 2014, approximately one day after completing this job, Mr. Marino (date of birth: September 28, 1981) reported experiencing a variety of symptoms including vomiting, light headedness, nausea, and urination issues.

A review of the medical records indicated that Mr. Marino was admitted to the hospital on May 1, 2014, with a complaint of weakness, malaise, anorexia, and approximately a 23 pound weight loss. Mr. Marino was diagnosed with end stage renal failure and subsequently began dialysis. Mr. Marino was discharged on May 9, 2014, with a treatment plan that included dialysis three times per week and placement on the kidney transplant waitlist. Mr. Marino was advised by his treating physician that a kidney transplant was necessary for his survival. After being diagnosed with end stage renal disease, Mr. Marino began dialysis treatment and was advised that if he receives a transplant, he will be able to live for another 10 to 15 years.

Mr. Marino's Prior Medical History

Medical records indicated prior evaluation at the University of Pennsylvania [date unknown] where Mr. Marino was reported to have "underdeveloped kidneys" as an infant that later improved.

Mr. Marino's Family Medical History

Medical records indicated that Mr. Marino did not have a family history of kidney disease.

Epidemiology of Acute Renal Failure and Diesel Exposure

Acute kidney injury (AKI), formerly known as acute renal failure (ARF), is a syndrome often characterized as the rapid loss of the kidneys excretory ability to remove waste and help balance fluids and electrolytes in the body (Bellomo et al., 2012). As a result, the presence of metabolic acidosis is a key indicator in identifying the presence of kidney failure (National Institute of Health (NIH), 2015). There are several different causes associated with the development of ARF and it occurs in a wide variety of patients, making the evaluation and prognosis extremely difficult (Bellomo et al., 2012). According to Hsu et al. (2007), the incidence for non-dialysis requiring AKI is more than 5,000 cases per million people per year and up to 295 cases per million people per year for dialysis requiring AKI. In addition, the frequency of occurrence the day after admission to an intensive care unit and during intensive care unit admission is more than 36% and 60%, respectively (Bagshaw et al., 2008; Hoste et al., 2006). According to the ATN



(Acute Renal Failure Trial Network study) and RENAL (Randomised Evaluation of Normal versus Augmented Level of Renal Replacement Trial) trials, mortality from AKI continues to remain high, ranging from 44.7% to 53% (Bellomo et al., 2012). Several risk factors are suggested to be linked to development of AKI, such as sepsis, hypovolaemia, chronic kidney disease, peripheral artery disease, liver disease, heart failure, diabetes mellitus, and nephrotoxins like diesel fuel (Finlay et al., 2013; Mayo Clinic, 2015; NIH, 2015).

As discussed above, exposure to diesel fuel has been suggested to play a role in the development of AKI. According to the Agency for Toxic Substances & Disease Registry (ATSDR), breathing diesel fuel vapors for a long time may damage your kidneys, increase your blood pressure, or lower your blood's ability to clot. Constant skin contact, such as washing, with diesel fuel may also damage your kidneys. While the epidemiologic literature evaluating the association between exposure to diesel fuel and development of AKI is limited, numerous case reports and animal studies have demonstrated an increased risk of AKI development as a result of exposure to diesel fuel. For instance, Reidenberg et al. (1964) documented the development of ARF in a 33 year old man who was exposed to diesel fuel vapor for 10 days while driving a truck with a fuel injector leak. Similarly, a 28 year old man developed ARF after washing his hair with an unknown amount of diesel fuel (Barrientos et al., 1977). In another case report by Li et al. (1999), a 43 year old sailor suffered from acute renal failure after immersion in seawater polluted by diesel oil where the routes of absorption were likely dermal, lung and gastrointestinal tract. Another case study reported the development of acute tubular renal necrosis among a 47 year old man who washed his hands with an unspecified diesel fuel over several weeks (Crisp et al., 1979).

It is important to note that the age of the men evaluated in the case reports described above are not considered to be elderly, which is a known risk factor for AKI. Furthermore, they were all exposed through dermal and/or inhalation routes over a short duration. Taken together, and in light of the fact that there is no existing epidemiologic literature, these case reports demonstrate an association between exposure to diesel fuel over a short period of time and development of AKI.

Although animal physiology is different from human, several animal studies demonstrate the potential for acute renal effects from high levels of exposure to diesel fumes. For instance, several studies have demonstrated a dose-response relationship between multifocal tubular atrophy and focal tubular necrosis at the corticomedullary junction in male rats who received 90 days of continuous inhalation of 150 or 700 mg/m³ jet fuel vapor and 50 or 300 mg/m³ marine diesel fuel vapor (Bruner, 1984; Cowan and Jenkins, 1981; Gaworski et al., 1984). In contrast, Lock et al. (1984) did not identify any renal system changes in rats following inhalation of diesel fuel aerosol concentrations up to 1,500 mg/m³ for 4 hours per day for 2 weeks over a 13 week period.



Occupational Exposures of Mr. Marino

To better understand the potential for an association between Mr. Marino's work and development of AKI, it is of utmost importance to evaluate the intensity, duration, and frequency to which Mr. Marino was exposed to diesel and its products while repairing the water line.

It is also critically important to evaluate Mr. Marino's previous occupational history in order to evaluate any exposures that may have increased his risk of developing AKI. A review of the materials indicated that prior to working as a plumber for REMCO from approximately 2008 to 2011 and from 2013 to 2014, Mr. Marino worked as a plumber in various capacities for different employers from approximately 2003 until 2008. From approximately 1993 to 2003, Mr. Marino worked "odds-and-end-jobs" and from approximately 1994 to 1999 Mr. Marino delivered newspapers. A review of Mr. Marino's prior occupational history did not reveal any potential occupational exposures that are recognized as increasing one's risk of developing AKI.

Summary of Opinions

In summary, based on my background, training and experience in the areas of medicine, public health and epidemiology, and my review of the provided case materials, I have reached the following conclusions with a reasonable degree of scientific and medical certainty:

- On March 21, 2014, Mr. Marino began repairing a water line in an excavation where he was exposed to diesel fuel [weathered product] for several hours on three different days he worked in the excavation. Mr. Marino testified that he wore the same insulated coveralls for the duration of his work at the site. As a result, Mr. Marino experienced significant dermal and inhalation exposure to diesel fuel [weathered product] and thus had an increased risk of developing AKI.
- The medical records indicated that a biopsy of Mr. Marino's kidney was described as showing "diffuse global glomerulosclerosis, tubular atrophy and interstitial fibrosis,..." Given these changes, Mr. Marino's ability to clear a nephrotoxin, such as diesel fuel, would have been reduced. Thus, Mr. Marino was at an increased risk for developing AKI during the time he was exposed to the diesel fuel [weathered product] at the Pilot Travel Center.
- A review of the case materials indicated that monitoring of MW-3 monitoring well on February 19, 2014, which was located directly on top of the excavation where Mr. Marino worked, contained diesel fuel [weathered product]. Thus, Sovereign Consultants, Inc. and Pilot Travel Centers LLC had information indicating that workers repairing this leaking water line would have been exposed to diesel fuel [weathered product]. As such, they could have prevented Mr. Marino from being



exposed to diesel fuel [weathered product] and minimized his risk level relative to his development of AKI.

- Based on the February 19, 2014, discovery of the diesel fuel [weathered product],
 Pilot Travel Centers, LLC, and their contactors should have implemented the
 portions of their health and safety plan that covered exposures to hazardous
 substances, including diesel fuel. Specifically, the Safety, Health, and Emergency
 Response Overview states "Sovereign Consulting Inc. (Sovereign) shall provide a
 workplace free of known and recognized safety and health hazards to the extent
 reasonably achievable...for Pilot for Pilot New Milford."
- As a board certified occupational medicine physician with extensive experience in the oil industry, Mr. Marino experienced a significant exposure to diesel fuel and weathered products that could have been avoided had the site safety plan been followed.
- While the epidemiologic literature evaluating the association between exposure to diesel fuel and development of AKI is limited, the case reports previously described demonstrated an association between exposure to diesel fuel over a short period of time and development of AKI. Furthermore, one can draw upon several similarities between the men evaluated in the case studies and Mr. Marino as they were all exposed through dermal and/or inhalation routes over a short duration.
- Mr. Marino's treating physician's opinion that he [Mr. Marino] could not survive without receiving continuous dialysis treatments appears medically correct. In addition, dialysis treatment, while effective in mediating his AKI, has the potential to cause several adverse health effects that increase an individual's risk of death.

It is my opinion to a reasonable degree of medical and scientific certainty that Mr. Marino's development of AKI is directly related to the high levels of diesel exposure he received during the four days he worked at the Pilot Travel Center. A review of Mr. Marino's medical records indicated that he had an underlying pre-existing renal condition that placed him at an increased risk of developing ARF as a result of nephrotoxic exposure. In addition, a review of Mr. Marino's prior occupational history did not demonstrate occupational exposures known to be associated with development of ARF.



These opinions and conclusions are based on a review of the materials provided by Villari, Lentz & Lynam, LLC and the information available to me at this time, and all conclusions stated herein are made within a reasonable degree of medical and scientific certainty. If additional information becomes available at a later date, I reserve the right if necessary to amend this report or author a supplemental report.

Sincerely yours,

Mark A. Roberts, M.D., Ph.D., M.P.H., M.Ed., FACOEM

Principal Scientist, Health Sciences Practice

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